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wherein,

A is a nucleic acid chain comprising nucleic acid monomers selected from the group consisting of natural nucleic acids, modified nucleic acids and combinations thereof;

R is a molecular energy transfer donor;

Q is a molecular energy acceptor; and

X and Y are the same or different and are non-nucleic acid stabilizing moieties that interact to bring R and Q into operative proximity, thereby enabling transfer of energy from R to Q; and

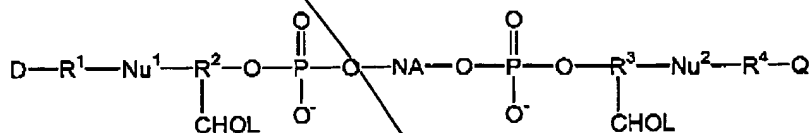
n is 0 or 1.

33. (Amended) The compound according to claim 32, wherein said molecular energy transfer donor is a fluorophore.

39. (Amended) The compound according to claim 32, wherein said nucleic acid monomers are joined by linkages that are members independently selected from the group consisting of phosphodiesters and modified phosphodiesters.

41. (Amended) The compound according to claim 32, wherein said nucleic acid chain further comprises a hybridization enhancing moiety.

50. (Amended) A compound having the formula:



wherein,

CHOL is a cholesterol derivative;

R¹, R², R³ and R⁴ are linker moieties independently selected from the group consisting of substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl;

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D4 Cont'd SUB E1

Nu^1 and Nu^2 are members independently selected from the group consisting of nucleotide residues and nucleoside residues;

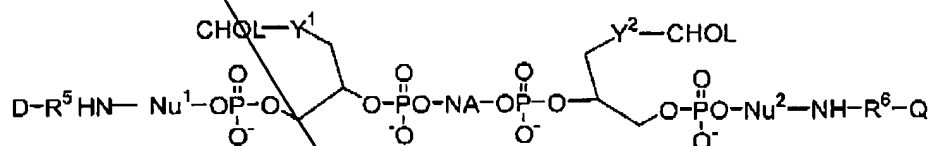
NA is a nucleic acid sequence;

D is a donor of light energy; and

Q is a quencher of light energy,

wherein each CHOL interacts with the other CHOL to bring D and Q into operative proximity, thereby enabling transfer of energy from D to Q.

57. (Amended) A compound having the formula:



D5 SUB E1

wherein,

NA is a nucleic acid sequence;

Nu^1 and Nu^2 are members independently selected from the group consisting of nucleotide residues and nucleoside residues;

Y^1 and Y^2 are linking groups independently selected from the group consisting of substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl;

R^5 and R^6 are linking groups independently selected from the group consisting of substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl;

D is a donor of light energy; and

Q is a quencher of light energy,

wherein each CHOL interacts with the other CHOL to bring D and Q into operative proximity, thereby enabling transfer of energy from D to Q.